REMARKS

The Examiner rejected Claims 1-8 under 35 U.S.C. 102(e) as being anticipated by Vahala *et al*, (hereafter "Vahala") USP 6,633,696. Applicant traverses this rejection. The Examiner has the burden of showing by reference to the cited art each claim limitation in the reference. Anticipation under 35 U.S.C. 102 requires that each element of the claim in issue be found either expressly or inherently in a single prior art reference. *In re* King, 231 USPQ 136, 138 (Fed. Cir. 1986); Kalman v. Kimberly-Clark Corp., 218 USPQ 781, 789 (Fed. Cir. 1983). The mere fact that a certain thing may result from a given set of circumstances is not sufficient to sustain a rejection for anticipation. *Ex parte Skinner*, 2 USPQ2d 1788, 1789 (BdPatApp&Int 1986). "When the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a teaching or suggestion appears in the reference" (*In re* Rijckaert, 28 USPQ2d, 1955, 1957).

With reference to Claim 1 the Examiner maintains that Vahala teaches that more than 10% of the light in the waveguide 12 is coupled to resonator 20. The Examiner, however, does not point to any place in the reference at which this teaching can be found. Applicant has examined the reference and cannot find any such teaching. While Vahala mentions the coupling constant κ that measures the fraction of the light that is coupled from the waveguide to the resonator, Vahala does not provide any values for this constant. Accordingly, Applicant submits that the Examiner has not made a *primia facia* case for anticipation with reference to Claim 1 or the claims dependent therefrom.

With reference to Claim 5, the Examiner has not pointed to any teaching in Vahala that the resonator can be a folded cavity resonator. Hence, there are additional grounds for allowing Claim 5.

With reference to Claim 6, the Examiner has not pointed to any teaching in Vahala that the waveguide and the resonator occupy different portions of a layered structure comprising an n-type semiconductor layer, an active region comprising a quantum well layer, and a p-type semiconductor layer, the active region absorbing light of wavelength λ more strongly in the first state than in the second state, wherein the active region in the portion of the layered structure occupied by the waveguide is disordered, thereby rendering the active region in that portion more transparent to light of wavelength λ than the active layer of the layered structure occupied by the resonator when the resonator is in the first state. Hence, there are additional grounds for allowing Claim 6.

I hereby certify that this paper is being sent by FAX to 703-872-9306.

Respectfully Submitted,

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